**TABLE OF CONTENTS****From the Editors 2**

Robert Lissner hints at a new version of AppleWorks.

Letters to NAUG 3

- Printer setup problems.
- How to delete damaged files.
- ASCII files without returns.
- Making TimeOut memory-resident.

Hardware Review 6

- Zip Chip speeds up AppleWorks.
- Will Zip face competition soon?
- Running game software on the Zip Chip.
- A word of caution.

Novice Notes 11

An easier way to get underlining and boldface.

Macro Tips 11

A macro that counts data base records.

Advanced Techniques 12

How to save copies of screens on disk.

Software Review 14

- TimeOut SuperFonts: Impressive output for AppleWorks documents.
- SuperFonts' formatting commands.
- Using SuperFonts' alternate character set.
- Why you cannot use a print buffer to speed up SuperFonts or Printrix.
- Printer and interface cards supported by SuperFonts.

Novice Notes 21

- How to use AppleWorks' clipboard.

Members Helping Members 25

60 member-volunteers who can help with AppleWorks-compatible software.

Electronic Index Disk Update 27**Membership Information 28****Guidelines for Advertisers 28****Seminar Schedule 28****Support for AppleWorks and ///EZ Pieces Users**

The Next Version of AppleWorks

NAUG's AppleWorks seminars at AppleFest were popular events; more than 300 AppleWorks users attended the all-day meetings. A highlight of each day was the opportunity to talk with AppleWorks author Robert Lissner. You can guess the question most frequently asked of Lissner: "Will there be a new version of AppleWorks?"

While Lissner was guarded in his replies, it was obvious that he is working on a new version of AppleWorks. Here are some things he revealed during the three question-and-answer sessions:

1. The next version of AppleWorks will be developed on a Macintosh II using a new, previously unannounced, cross-assembler that Apple has available for the Mac. The cross-assembler lets you write Apple II Assembly Language programs on the Macintosh. However, Lissner made it clear that the new version of AppleWorks will not run on the Mac, even though it will be written on that machine.
2. AppleWorks will continue to run on all Apple II machines, not just on the IIGS. Lissner indicated that the graphic interface on the IIGS degrades the performance of AppleWorks and he described that degradation as "unacceptable". AppleWorks will continue to use a text-based interface and will not use the IIGS graphic capabilities, although it might let users navigate and make choices with a mouse.
3. The next version of AppleWorks will not fit on a single 5.25-inch Program Disk. While you will be able to run the program on a 5.25-inch floppy disk drive system, it will require some disk swapping. A 3.5-inch disk drive will be recommended. Lissner indicated that fitting future versions of AppleWorks on a single 5.25-inch disk would place major limitations on the program.
4. AppleWorks will continue to have "hooks" so third-party developers can enhance the program. However, Lissner indicated that the cur-

rent enhancement programs will need to be modified to make them work with future versions of AppleWorks. He indicated his support for programmers who want to enhance future versions of AppleWorks.

5. Any new version of AppleWorks will have features not available on version 2.0. Most likely is spell checking capability, but other enhancements from the various "wish lists" submitted by NAUG and other groups are getting serious consideration. Although Lissner made it clear that Claris will make the final decisions about what will be included in any new product, he is doing his own market research. Lissner asked attendees at one seminar to list the three most important features they want included in a new version of AppleWorks.

In summary, there is a new version of AppleWorks in our future. Claris is committed to supporting and developing the program, and Lissner is working closely with Claris on the new product. Although Claris could surprise us all and buy GSWorks from StyleWare, most of us expect an evolution of the current keyboard-driven program, not a revolutionary new product. The new AppleWorks will have more features but will retain AppleWorks' familiar Apple-Key and file folder interface. ■

The logo features the word "AppleWorks" in a stylized font with an apple icon, followed by the word "Forum" in a large, outlined serif font.

Editor: Cathleen Merritt

Associate Editor: William Marriott

Technical Coordinator: James Smith

Publisher: The National AppleWorks Users Group

©COPYRIGHT 1988, by NAUG, The National AppleWorks Users Group, for the exclusive use and enjoyment of its members. Any reprint or reproduction must be approved in writing and in advance by NAUG.

The "AppleWorks Forum" ISSN #0893-4118, is published monthly for \$27 per year by the National AppleWorks Users Group.

POSTMASTER: Send address changes to AppleWorks Forum, NAUG, Box 87453, Canton, MI 48187

Letters to NAUG

Printer Setup Problems

Dear NAUG:

We own a Brother M-1509 printer that we cannot get to work correctly with AppleWorks. We get some "creative" output, but it hardly meets the standards associated with normal business letters. We have tried all different DIP switch settings with no success.

Our hardware includes a 128K Apple IIe, an Orange Micro Grappler+ interface card, and the Brother printer.

Stanley Giermek
Archbishop Curley High School
Baltimore, Maryland

[Ed: Your printer problems are caused by the Grappler+ interface card, not by the Brother printer. You must change the printer interface card setting in AppleWorks from its default of Control-I 80N to Control-I 0N.

Here is how to make those changes:

- 1. Reset all the DIP switches to their original settings.*
- 2. Boot up AppleWorks. With the Main Menu on the screen, select choice #5, "Other Activities".*
- 3. With the Other Activities Menu on the screen, select choice #7, "Specify information about your printer(s)".*
- 4. Indicate that you want to change the printer specifications for the Brother printer.*
- 5. Indicate that you want to change the interface card setting.*
- 6. AppleWorks will display the default interface card setting of Control-I 80N. Indicate you want to change that setting.*

The **National AppleWorks Users Group (NAUG)** is an association that supports AppleWorks users. The group provides technical support and information about AppleWorks and enhancements to that program. Our primary means of communicating with members is through the monthly newsletter entitled the **AppleWorks Forum**.

- 7. Enter the new setting by holding down the Control Key and pressing the letter "I", typing a zero, typing the capital letter "N", and then typing a caret (by holding down the Shift Key and pressing the number "6").*
- 8. Press the Escape Key until you return to the Main Menu. Be patient. AppleWorks will write the new settings on your Program Disk ... that takes a few moments.*

Now you can enter the control codes required to get the special features available on your Brother printer. For help installing those codes, see the article entitled "How to Configure AppleWorks So It Works with Custom Printers" in the August 1986 issue of the AppleWorks Forum.]

How to Delete Damaged Files

Dear NAUG,

I am concerned about my inability to delete an unwanted data base file from my AppleWorks data disk. The file shows up on my disk catalog as a 5K data base file. However, when I try to load the file onto the AppleWorks desktop, I get the message "Unable to get this file because it exceeds AppleWorks' maximum file size of 1,350 Data Base records." When I go to the Other Activities Menu and try to delete the file, I get the message "Unable to delete this file".

Obviously a 5K file isn't too big for AppleWorks. Why can't I delete that file? I've tried deleting the file using different versions of AppleWorks and different versions of ProDOS. What is the problem?

Harry Lewty
Garland, Texas

[Ed: This problem is usually caused by a damaged disk catalog. ProDOS, the program that manages your AppleWorks data files, must know the size of every file on your disk. It keeps track of the size of each file by using an End of File (EOF) marking system. If the EOF mark does not correspond to the actual end of your file, ProDOS, and ultimately, AppleWorks, get confused and are unable to load or delete your file.

The best way to recover from this problem is to use a file copy program to copy all the undamaged files from the disk containing the defective file onto a new AppleWorks data disk. When you use a file copy program, ProDOS builds a new disk catalog and new file structures on the destination disk. Disk copy programs, on the other hand, make a new copy of everything on the original damaged disk ... including all the errors.

This damage is usually caused by using an old version of ProDOS when you save your file. Changing to a new version of ProDOS after the file is damaged does not help. If you have not already done so, you should immediately replace the copy of the file called ProDOS on your AppleWorks Startup Disk with ProDOS 8, version 1.4. Step-by-step directions on how to replace ProDOS appear in the article entitled "How to Install the New Version of ProDOS" published in the February 1988 issue of the AppleWorks Forum.]

ASCII Files without Returns

Dear Cathy,

I need to be able to convert AppleWorks word processor files into ASCII text files on my disk. I can do that using the Apple-P command to "print" my documents on the disk, but AppleWorks insists on putting a Return at the end of every line. I am transferring the data to another program that cannot accept those Returns. How can I get rid of those troublesome Returns?

Barry Moore
Normal, Illinois

[Ed: While it is possible to "patch" your copy of AppleWorks to eliminate the Returns at the end of each line, here are two easier ways to get the ASCII files you desire:

- 1. Use an older version of AppleWorks. Versions 1.1-1.3 of AppleWorks create ASCII files on your disk without Returns.*
- 2. Get the new TimeOut PowerPack disk. This disk includes "AWP to TXT", a TimeOut utility that converts AppleWorks word processor files*

directly into ASCII files without a Return at the end of each line. You will also appreciate other AppleWorks enhancements on the PowerPack disk including the Triple Desktop and Triple Clipboard modules. Triple Desktop lets you store up to 36 different files on the AppleWorks desktop. Triple Clipboard gives you three independent clipboards.]

Making TimeOut Memory-Resident

Dear Ms. Merritt:

I use the TimeOut enhancements to AppleWorks regularly, so I load them onto my RamWorks memory expansion card. However, these TimeOut applications remain in memory only as long as AppleWorks is running. Whenever I start AppleWorks, I have to return to the TimeOut Utilities Menu and specify the modules I want to load onto my RamWorks card.

Is there any way to set up TimeOut so these applications are automatically loaded onto the desktop memory when I start AppleWorks?

Steve Sturtevant
Menasha, Wisconsin

[Ed: The TimeOut modules can be loaded into memory for a single use or configured so they automatically load into memory when you start AppleWorks. Both operations are controlled from the TimeOut Utilities Menu.

You've discovered how to make the modules memory resident for a single session: You invoke the TimeOut Utilities and select choice #2, "Load to memory".

If you want a module to automatically load into memory when you start AppleWorks, select choice #4, "Change memory status" and change the "memory status" of the TimeOut modules so they are "memory-resident". Those modules will automatically load onto your memory card the next time you start AppleWorks; they are not loaded into memory for the current session.]

A Word From The Wise.

"Beagle Bros' TimeOut series puts every enhancement you could dream of right inside AppleWorks."

Paul Statt, inCider

"TimeOut Graph works seamlessly; if you didn't know better, you'd swear it was part of AppleWorks. I'm very impressed with TimeOut."

Owen Linzmayer, Nibble

"I personally find this series very exciting. The entire series of programs belongs inside of every serious AppleWorks user's repertoire!"

Marc Apfelstadt, Call-APPLE

"Beagle Bros' foray into the applications arena is impressive. The TimeOut series add-ons are easy to use and they interact with AppleWorks perfectly.

TimeOut SuperFonts print quality is excellent, and makes you think you have a Macintosh hidden inside your Apple II. The TimeOut series is a major breakthrough for AppleWorks owners."

**Gregg Keizer,
Compute!'s Apple**

"The TimeOut series is the best thing to come along for AppleWorks users."

**Lee Hayward,
TAWUG**

"TimeOut UltraMacros is incredible. TimeOut QuickSpell is a work of true genius. I love this program."

Tom Welshaar, Open-Apple

"TimeOut DeskTools does its work at blinding speed. Beagle Bros has done its homework. The breadth and quality of this opening salvo in the AppleWorks enhancement wars bodes well."

Charles Rubin, A+

"It is rare a program impresses me as much as the TimeOut series did. After installing the programs and seeing the speed, all I could say was WOW. As far as I am concerned, if you use AppleWorks you need TimeOut. Period!"

Jay Wilbur, Uptime

"TimeOut 'fits' AppleWorks like a glove and in no time you get the feeling that it 'belongs' with AppleWorks. TimeOut SideSpread is terrific. TimeOut FileMaster is indispensable."

**Ib Thorsteinsson, Robert
Grist, Lorne Walton,
Apples B.C. News**

"The TimeOut series programs are excellent AppleWorks enhancements."

**Warren Williams,
NAUG AW Forum**



Beagle Bros
MICRO SOFTWARE

The TimeOut Series: QuickSpell, SuperFonts, UltraMacros, Graph, DeskTools, SideSpread, FileMaster
Beagle Bros, Inc. • 6215 Ferris Square, Suite 100 • San Diego, CA 92121 • 619-452-5500 • 800-345-1750 • 800-992-4022 (CA)

Zip Chip: An Effective Way to Speed Up AppleWorks

by David Rodwell and Paul Rodwell

If you have time to read this article while AppleWorks recalculates a large spreadsheet or rearranges the data in a data base, you are a candidate for the newest Apple II accelerator product, the Zip Chip.

The Zip Chip, from Zip Technology, makes AppleWorks faster. Many AppleWorks operations run three times faster on a Zip Chip-equipped Apple than on a standard machine. The improvement in speed is particularly noticeable when you work on large files.

What Is the Zip Chip

The Zip Chip replaces the 6502 or 65C02 microprocessor in an Apple II, II+, IIe, or IIfx. The chip, which is slightly larger and more rigid than the unit it replaces, includes a high-speed 6502 processor and 16K of RAM. The RAM is used to cache instructions and/or data and speeds up the operation of the system.

While a standard Apple II runs at 1.04 Megahertz, the Zip Chip works at an effective speed of 4 Megahertz. This results in a much more responsive Apple II computer.

The Zip Chip is not the first accelerator product available for the Apple II, II+, and IIe. Many Apple owners have installed either a TransWarp or Titan Accelerator IIe card in their computer to speed up AppleWorks. However, as a replacement chip, the Zip Chip does not use any slots in an Apple II, II+, or IIe. In addition, the chip is the only way to accelerate an Apple IIfx. The Zip Chip is not compatible with the Apple IIGS, which does not use a 6502 microprocessor.

The Zip Chip Package

The Zip Chip package includes a manual, a small tool designed to help you remove the original 6502 processor, and a disk of utility programs. The utility programs let you:

1. Test the chip (the results are difficult to understand and the diagnostic output is not explained in the manual),
2. Set the chip at one of 18 different speeds (most often you will not use the utilities to change speed ... you can toggle between Apple speed and Zip Chip speed whenever you boot your computer), and
3. Change the speed that the chip addresses the different slots in the computer. (Fortunately, the default settings are usually appropriate. For example, the chip assumes you have your

modem connected to slot 2 in an Apple IIe or the modem port on a IIfx. If you have unusual devices in your Apple or if you put those devices in non-standard slots, you will have to use the utility programs to reset the speed of those slots.)

Unlike accelerator cards, which use DIP switches to set the slot speeds, the Zip Chip does not remember the speed settings. Every time you boot the computer, the Zip Chip returns to its default settings and you must go through the configuration process again. Fortunately, most AppleWorks users do not need to change

the default settings; you can simply put an AppleWorks disk in the drive and reboot the computer.

When you boot a Zip Chip-equipped computer, the unit pauses for approximately two seconds. If you

The Zip Chip does not use any slots, and is the only speed-up option for Apple IIfx computers.

Zip May Face Competition Soon

Zip Technology was highly visible at AppleFest. We saw many Apple IIe's at the show sporting a sign "Powered by Zip Chip" and running at faster than normal speeds. Beagle Bros demonstrated their new TimeOut enhancements on a Zip Chip-equipped Apple IIe. Berkeley Software ran their impressive GEOS package on a Zip Chip-equipped Apple and the Berkeley representative indicated he experienced no problems running GEOS on the chip. Even Claris let Zip install a speed-up chip in one of the IIe's used to demonstrate the network version of AppleWorks.

But Zip Technology will soon have a competitor in the speed-up business. Another startup company, Bits and Pieces, demonstrated a prototype of their speed-up chip at AppleFest. Unlike the Zip Chip, which is currently available only by mail order, the Bits and Pieces product, called the Rocket Chip, will be sold through retail computer dealers.

Bits and Pieces promised NAUG the first production Rocket Chip. We will publish a review of the Rocket Chip in a future issue of the *AppleWorks Forum*.

want to work at normal Apple speed, press the Escape Key during that delay. (If you plan to play a game, you'd better press the Escape Key. Pac Man is fun to watch on a Zip Chip-enhanced Apple, but at Zip Chip speed it becomes more of a spectator sport than an interactive activity.)

Then the Apple boots from its usual disk and loads AppleWorks. Now everything goes faster, including the blinking cursor.

How Fast is the Zip Chip?

Testing the Zip Chip is not a simple task. The chip has a different effect on memory-based and disk-intensive operations. For example, the chip has no noticeable impact on the operation of TimeOut QuickSpell when the dictionary is on a floppy disk. However, when the QuickSpell dictionary is loaded

onto a RAM disk, the Zip Chip speeds up the program so it runs approximately three times faster than on a standard RAM disk-equipped Apple.

Similarly, the chip has a significant impact on the speed of the AppleWorks word processor, but not on the time it takes to save a file onto a disk or display a disk catalog.

As a result, the speed improvements you get from the chip depend, in part, on the configuration of your computer. Owners of memory expansion cards that are large enough to accommodate AppleWorks, the TimeOut enhancements (including the dictionaries), and their data will notice bigger improvements in performance than will owners of standard 128K Apple systems. The fastest operation occurs when you configure your memory expansion card as a RAM disk and copy all your programs onto that "disk".

Our Tests

We compared the performance of the Zip Chip with a standard Apple by using AppleWorks with the same data files on three identical Apple IIe computers. One computer was equipped with a Zip Chip, one had a standard 65C02 processor, and the third was equipped with a TransWarp accelerator card. All three units were equipped with one-megabyte RamWorks III cards.

Figures 1-3 summarize the results of our tests.

AppleWorks Word Processor Tests

Our word processor tests used a file that contained 17 pages of single spaced text. The file used 40K of space on a disk and 42K of space on the AppleWorks desktop.

We ran three tests, which timed the following operations:

1. Apple-F, to find a symbol inserted at the end of the document.
2. Apple-K, to calculate the page breaks in the document.
3. The CI Command, to reformat the document from 10 characters per inch to 12 characters per inch.

Figure 1: Word Processor

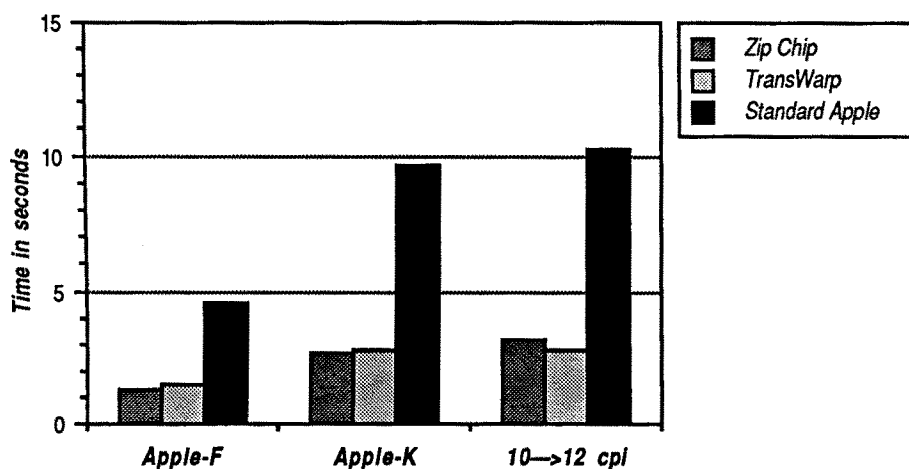


Figure 2: Data Base

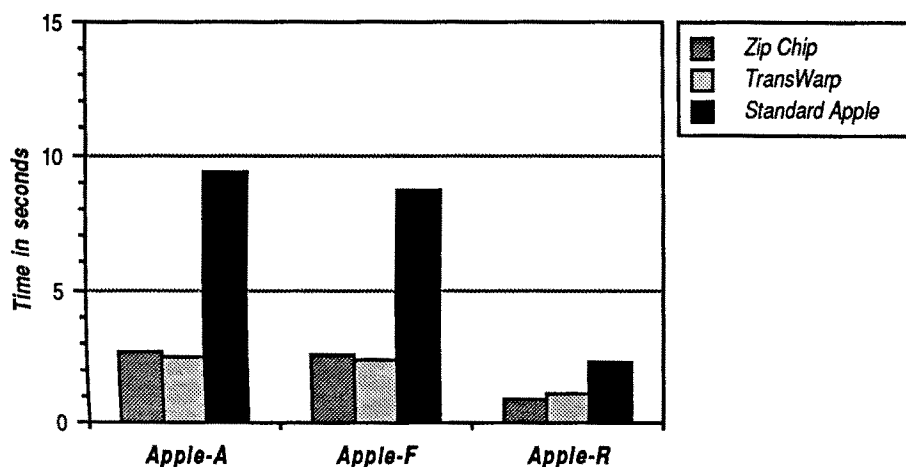


Figure 3: Spreadsheet

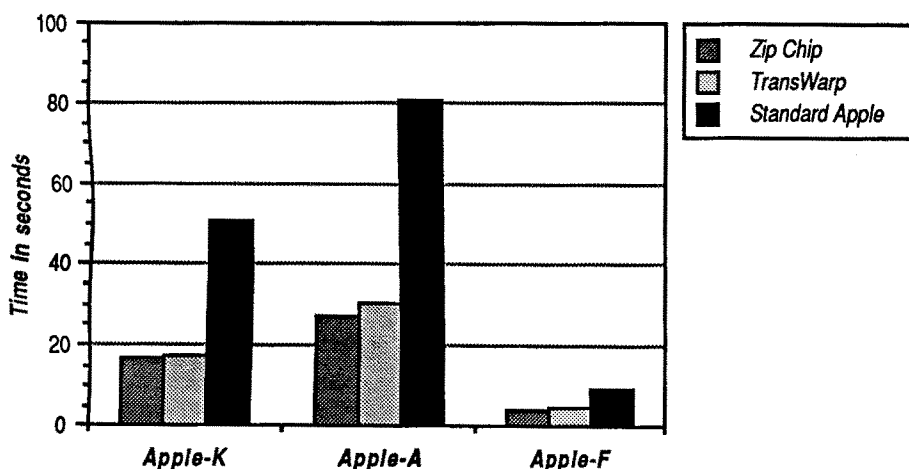


Figure 1 summarizes the results of those tests.

Overall, we found that the Zip Chip and TransWarp cards resulted in similar gains in performance. The AppleWorks word processor ran about 3.5 times faster on a machine equipped with either accelerator when compared to a standard Apple IIe.

AppleWorks Data Base Tests

Figure 2 summarizes the results of the tests of the accelerator devices working with an AppleWorks data base file. The tests used the NAUG Electronic Index, a file with 358 records and 11 categories per record. That file uses 48K of space on disk, 49K on the AppleWorks desktop.

We conducted three tests and timed the following operations:

1. Apple-A, to arrange all records in order by author's name.
2. Apple-F, to find all the records by a single author.
3. Apple-R, to find all records that match a single decision rule.

Once again, AppleWorks performed significantly faster with either accelerator product. The speed gains ranged from approximately 2.5 times faster using the Apple-R command to 3.5 times faster in the other tests. There was no appreciable difference between the performance of the Zip Chip and the TransWarp card.

AppleWorks Spreadsheet Tests

We constructed a simple, but relatively large, AppleWorks spreadsheet for these tests. The spreadsheet consisted of all the cells in columns A-D. Each of the approximately 4,000 cells except cell A1 contained a formula that added the number one to the contents of the previous cell. Cell A1 contained any number we entered. This file used 107K of disk space and 108K of desktop.

Once again, we tested the speed of three typical operations:

1. Apple-K, to force a recalculation of the spreadsheet.
2. Apple-A, to rearrange all 999 rows in reverse order and recalculate the spreadsheet.
3. Apple-F, to find text in cell D999.

Figure 3 summarizes the results of the three spreadsheet tests. The data indicate that the accelerator equipped computers operated two to three times faster than the standard system. And, once again, there was no appreciable difference between the Zip Chip and the TransWarp card.

Zip Chip and AppleWorks Enhancements

We found the Zip Chip to be compatible with all the TimeOut modules we tested. However, the speed improvements associated with the chip depend upon the configuration of your system. For example, QuickSpell and Thesaurus, which are quick on any Apple, run at spectacular speeds when you load the dictionaries and the programs onto a RAM disk. However, since the Zip Chip has little impact on disk-based operations, there is little improvement in the operation of either module when the dictionaries are accessed from a 3.5-inch or 5.25-inch floppy disk. For the best performance, you should load all the modules and their associated files onto a memory card configured as a RAM disk.

Compatibility

We tested the compatibility of the Zip Chip with numerous products that are popular with AppleWorks users. These include ThinkWorks (an AppleWorks-compatible outliner), Sensible Speller, and ReportWorks (an AppleWorks-compatible relational report generator). We found these programs compatible with the Zip Chip and all ran faster on a Zip Chip-equipped Apple. However, all these programs are disk-intensive; the performance gains when running from a floppy disk were noticeable but not spectacular. While these programs are marginal performers on a standard Apple, they are impressive when run from a RAM disk on a Zip Chip-equipped machine.

We also tested the Zip Chip with other programs and found the chip to be compatible with all the TimeOut modules, Copy II+, WillWriter, AppleWriter, Multiplan, PFS: Graph, DynaStat (a statistical program), Print Shop, and numerous games. We tested the chip

with a particularly slow program, the Apple Pascal compiler, and found the chip both compatible and appreciated. Our programs compiled approximately three times faster in the Zip Chip-equipped Apple than in the standard machine.

We found that the chip was compatible with various communications products including ASCII Express and Point-to-Point. The Zip Chip is configured to address slot 2 at normal speed, the slot usually used with a modem. We made no modifications to use those programs and our modem.

Documentation

Fortunately, the Zip Chip is easier to use than the manual suggests. While the manual is highly technical, it misses some important points. For example, it does not mention AppleWorks nor does it give clear directions about how to use AppleWorks with the Zip Chip. (All you have to do to use the Zip Chip with AppleWorks is install the chip in your Apple, put AppleWorks in the disk drive, and turn on the machine.)

***All you do is
install the chip,
put AppleWorks
in the disk drive,
and turn on
the machine.
AppleWorks will
run two to three
times faster than
normal.***

Running Games on a Zip Chip

Zip Chip speed is too fast for most games. To run a game at normal Apple speed, you must press the Escape Key during the two-second pause that occurs while the computer is booting.

However, the Zip Chip lets you play computer games at 18 different speeds. Some games, like Pac Man, benefit from one of the chip's intermediate speeds.

To run a game or other program at an intermediate speed, set the desired speed with the Zip Utilities Disk, quit the configuration program, then launch the game with the command "PR #6". This boots the program in the drive located at slot 6 without resetting the Zip Chip.

A Word of Caution

Here is an interesting story behind this product review.

Zip Technology shipped NAUG a production Zip Chip on April 25th. We immediately began testing the chip in a Apple IIc with an Applied Engineering Z-Ram memory expansion card. The chip performed flawlessly and we were impressed. However, when we used an expanded version of AppleWorks on that system, we found that the program could not access the memory on the Z-Ram card.

We transferred the chip to an Apple IIe with a Legend "S" card and had no difficulty addressing that card's memory. However, when we removed the Legend card and inserted a RamWorks III, AppleWorks once again could not find the extra memory.

The detectives among you probably put together the clues. It turned out that our particular chip would not address the extra memory on an auxiliary-slot card. We contacted Zip Technology; Steve Meadows and Tony Vace walked us through the diagnostic tests on the Zip Utilities Disk. We had a defective Zip Chip.

Zip immediately shipped a replacement chip, but that chip would not work properly in the RamWorks-equipped Apple. The Zip diagnostic program indicated that the chip was working correctly. We replaced the RamWorks card to no avail. Finally, we switched the Zip Chip from one system to a second Apple and the second computer worked correctly.

Our concern

Unlike the TransWarp and Titan accelerator cards, which have their own high-speed memory, it appears that the Zip Chip pushes the internal workings of the Apple computer to its limits. Any weakness in your system that goes undetected when running at normal Apple speeds may impede the operation of the computer when you install a Zip Chip.

Zip offers a 30-day money-back guarantee on the chip. Buyers should install the chip immediately to insure that it works with their system.

In addition, the manual does not warn you about the problems associated with static electricity and the Zip Chip. There should be clearly stated precautions that describe how to protect both the Zip Chip and the original 6502 processor in your Apple.

Part of the installation process involves using the diagnostic programs on the utility disk to check the operation of the chip. The diagnostic programs should be better documented so the user can interpret the results.

In general, we believe that most of the current manual should be relegated to the status of a technical appendix. Users should get a well organized, easy-to-follow manual that tells them how to install and use the chip for most popular applications.

Conclusions

The Zip Chip is significantly faster than the original 6502 and 65C02 microprocessor in the Apple II, II+, IIe, and IIc. We found that most AppleWorks modules and enhancements ran 2.5 to 3.5 times faster on a Zip Chip-equipped Apple than on a standard machine. We experienced no software compatibility problems using the Zip Chip. The results are comparable to those obtained with a TransWarp accelerator card.

Hardware Review...

We like the Zip Chip, particularly when it runs on an Apple II system with expanded memory. With the exception of the installation directions, you can ignore the manual. Replace the 6502 processor with the Zip Chip, boot up AppleWorks, and enjoy using a supercharged system. ■

[The Zip Chip costs \$133 from Zip Technology, 11340 West Olympic Blvd., Los Angeles, CA 90064 (800) 922-3700.]

[David Rodwell is an Administrative Assistant in Research and Data Processing for the Plymouth-Canton (MI) Community Schools. Paul Rodwell is a senior at Plymouth-Salem High School in Plymouth.]

Novice Notes

An Easier Way to Get Underlining and Boldface

by Jim Smith

Did you know that you can start and end underlining and boldface without issuing an Apple-O command and returning to the Options Menu? Issue a Control-L to start underlining and another Control-L to stop underlining. A Control-B will start boldface and another Control-B will stop boldface.

To issue a Control-L, hold down the key marked "Control" and press the letter "L". Do not use the Shift Key when you issue the Control-L or Control-B.

These are the only two AppleWorks commands that use the Control Key. ■

Macro Tips

A Macro that Counts Records

by Mark Munz

Remember the tip in the May 1988 issue of the *AppleWorks Forum* that shows you how to count the number of records in an AppleWorks data base? Here is an UltraMacros macro that lets you count the number of records without having to prepare a data base report. The macro uses the current record selection criteria when counting.

```
L:<adb:
onerr stop:
zoom:      {Get into multiple record layout}
R=0:      {Initialize "R" as a counter}
oa-1:      {Get to the beginning of the file}
begin
    R=R+1      {Increment the counter}
    msg ' '+str$ R +
            ' Records match current criteria ':
down      {Go to next record}
rpt>!
```

[Mark Munz, author of *Late Night Patches*, *Soft-Works*, and several macros on the *MacroTools* disk, is the *AppleWorks SIG* leader for the Northwest *Apple Pickers*, based in Tacoma, Washington.]

New TimeOut Modules Available

NAUG members can now purchase the new TimeOut Thesaurus, PowerPack, and DeskTools II enhancements at significant savings. These TimeOut modules are described in the May 1988 issue of the *AppleWorks Forum*.

Program	List	NAUG Member Price
QuickSpell	\$69.95	\$40.95
UltraMacros	59.95	36.95
FileMaster	49.95	30.95
Graph	89.95	50.95
SideSpread	49.95	30.95
DeskTools	49.95	30.95
SuperFonts	69.95	40.95
Thesaurus	49.95	30.95
PowerPack	49.95	30.95
DeskTools II	49.95	30.95

Shipping and handling: \$3 for the first program, \$2.00 for each additional program ordered at the same time. VISA/MasterCard accepted, but no telephone orders, please.

TimeOut Offer • National AppleWorks Users Group • Box 87453
Canton, Michigan 48187

How to Save Copies of Screens on Disk

by Tom Hexum

If you write about AppleWorks, you probably wish there was a way to save pictures of AppleWorks screens as word processor files on your disk. You could use those disk files to insert pictures of your screen into any word processor document.

For example, consider someone who is producing an AppleWorks tutorial. The writer wants to prepare the manuscript in the AppleWorks word processor. In addition, the author wants to include screen images in the document. If the writer could "print" screen images onto the disk, he/she could transfer the screen image stored on the disk directly into the AppleWorks document or into a desktop publishing program.

Although the Apple-H command in AppleWorks lets you print a copy of the screen on a printer, AppleWorks does not let you declare that an Apple-H printer is a disk drive. There is no easy way to directly transfer screen images onto the disk or into an AppleWorks document.

Here is a work-around that lets you store screen images as ASCII or AppleWorks word processor files on a disk. The technique is to send a picture of your screen to a telecommunications service and tell the service to send the picture back to your computer. You can then capture that image, store the captured image as an ASCII file on your disk, and load that file into AppleWorks.

What You Need

You need three things to use this technique: (1) a communications program, (2) a modem, and (3)

access to an electronic bulletin board or telecommunications service.

Communications program: You need a ProDOS communications program that lets you quit the program without hanging up your modem. For example, Point-to-Point (from Pinpoint Publishing), hangs up the modem when you quit the program; it

is not suitable for this application.

While I use ASCII Express for this process, you should be able to replicate these procedures with other communications programs.

Modem: You can use any standard 300, 1200, or 2400 baud modem that works with your Apple.

Bulletin Board: You need access to CompuServe, GENie, the Source, the NAUG bulletin board, or to any other telecommunications service that lets you send and receive electronic mail. Most electronic mail services will suffice, with one restriction. Some sys-

tems use the entry of a blank line to declare the end of a document. You cannot use those services for this process.

Assumptions

I will assume that your modem is connected to slot 2 of an Apple IIe or to the modem port on a Apple IIc or IIgs.

Finally, I will assume that you: (a) are an advanced AppleWorks user, (b) know how to use ProDOS or a program selector to move between AppleWorks and your telecommunications program, and (c) are familiar with your telecommunications software and the bulletin board service.

Print an AppleWorks screen "to disk" with a modem and access to any bulletin board system.

Advanced Techniques...

Directions

Follow these steps:

1. While in AppleWorks, go to the Printer Information Menu. Tell AppleWorks you have a custom printer connected to slot 2 if you have a IIe or IIGS, or port 2 if you have a IIfx.
2. (This step is only for IIfx owners. If you have a IIe or IIGS, skip to step 3.) IIfx owners: Indicate you want to change the printer codes for the new "printer" and select "Serial interface settings" from the Printer Codes Menu. Change the serial interface settings so they match the settings used to connect to your telecommunications service. Typical settings are 1200 baud, 8 data bits, 1 stop bit, no parity. Then press the Escape Key three times to return to the Printer Information Menu.
3. With the Print Information Menu on the screen, install your new "printer" as the Apple-H printer.
4. Quit AppleWorks and boot up your telecommunications program.
5. Connect to the NAUG Electronic Forum or any other bulletin board.
6. Indicate you want to send a letter to yourself.
7. When the BBS prompts you to enter the text of the letter, quit the telecommunications program, but leave the telephone line connected to the board. Do not reboot your computer.
8. Start up AppleWorks by issuing the correct pathname to start the program; e.g., /APPLEWORKS/APLWORKS.SYSTEM.
9. Get to the place in AppleWorks where your monitor displays the screen you want to save on disk.
10. Issue an Apple-H command. That will send a copy of your screen to the BBS.
11. Return to the AppleWorks Main Menu and quit AppleWorks.
12. Return to your telecommunications program without rebooting your Apple.

13. Get into "terminal mode" in your telecommunications program without redialing. (With ASCII Express you are automatically in Terminal Mode.)
14. Turn on your telecommunication program's capture buffer and tell the bulletin board that you want to review your "letter". The BBS will transmit the document containing your screen image. That image will be captured in your Apple's memory.
15. Tell the BBS you want to abort the letter, quit the BBS, and hang up.
16. Save the RAM buffer to disk. You now have an ASCII file containing the screen image stored on your disk.
17. If your desktop publishing program accepts ASCII files, you can import the ASCII file directly into your document. If you want to edit the screen image with AppleWorks, you can use the ASCII file to create a new word processor document. *[Ed: If you are using the telecommunications module in the Pinpoint Desktools, your file is automatically saved as an AppleWorks word processor document.]*

If your disk file has stray or missing characters, you can edit the file with AppleWorks. Load the ASCII file into AppleWorks and set the margins so AppleWorks expects to print 78 characters per line (at 10 cpi, use a left margin of zero and a right margin of 7.8). Edit the file as necessary. Then use the Apple-S command to save the edited file on disk or "print" the file in ASCII format onto your disk.

There are probably better ways to store screen images on your disk, but this is the best procedure I could devise. So I submit these ideas with the expectation that others will develop and share more efficient procedures. ■

[This article is published posthumously. Tom Hexum, a Charter Member of NAUG, a Members Helping Members volunteer-consultant, and an active contributor to the AppleWorks community, died recently in Maplewood, Minnesota.]

TimeOut SuperFonts: Impressive Output for AppleWorks Documents

by Bruce Shanker

Are you bored with the printed output you get from AppleWorks? If you yearn for the attractive proportional spaced fonts available on a Macintosh and if you want to incorporate graphic images in your AppleWorks documents, you should try SuperFonts. SuperFonts is an AppleWorks add-on that lets you use Macintosh-like text and graphic fonts to produce attractive AppleWorks word processor documents. The program also lets you incorporate high resolution and double high resolution pictures in your AppleWorks output. Advanced AppleWorks users can also use SuperFonts to enhance spreadsheets and data base reports.

Figure 1 is an example of the printed output you get from SuperFonts.

Functionality

SuperFonts is one of the TimeOut series of AppleWorks enhancements from Beagle Bros. After installing TimeOut on your AppleWorks disk and copying the file TO.SUPERFONTS onto your TimeOut Applications Disk, using SuperFonts is a three step process:

1. Begin a word processor file with codes that tell SuperFonts the fonts and picture files you want to use in a document.
2. Enter your text, including codes to specify the fonts, pictures, and formatting options you want in the printed output.

3. Invoke SuperFonts, preview the SuperFonts-enhanced output on the screen, and print the document on a dot-matrix printer.

The variety of output you can get from SuperFonts is impressive. The program comes with 13 different text fonts and two graphics fonts. Samples of those fonts appear in Figure 2. In addition, all Apple IIGs

fonts (including the 90 different fonts on StyleWare's "Font Library I" disk) work with SuperFonts. When you consider the possible combinations of different fonts, sizes, and styles, including italics, shadow, inverse and outline, the variety of printable characters appears limitless. Theoretically, SuperFonts allows up to 64 different combinations of fonts, sizes, and styles in a single document. However, the fonts must fit in memory, so the amount of memory in your Apple puts a limit on the number of fonts you can include in any document.

How to Use SuperFonts

Each word processor file you want to enhance with SuperFonts must begin with commands that define and load the fonts you will use in that document. Commands to load fonts, such as `<I=Courier.10>`, and commands to load picture files, such as `<P1=PIC.GRAPH>`, must appear at the beginning of the document and must precede all formatting commands and text.

Once you define a font or picture, you can use that

When you consider the possible combinations of different fonts, sizes, and styles, the variety of printable characters appears limitless.

Figure 1: SuperFonts Output and Commands

This is a Headline

Here is the beginning of the text for the article under the headline. When the file is printed on a dot matrix printer, the headline will print in 24-Point Times and this body copy will print in 12-point Helvetica. The last words in this sentence appear *in italics*

```
<1=helvetica.12>
<2=times.24>
-----Centered
      <2>This is a headline

-----Justified
<1>Here is the beginning of the text for the
article under the headline. When the file is
printed on a dot matrix printer, the headline
will print in 24-Point Times and this body copy
will print in 12-point Helvetica. The last words
in this sentence appear <ib>in italics<ie>.
```

nder the
nter, the
copy will
entence

Fonts ignores the Group Begin and End commands, Pause Here, and Enter Keyboard commands. Since the control of character size and font is managed by SuperFonts, the program also ignores AppleWorks commands calling for proportional fonts, lines per inch, and characters per inch. At first it takes time to get accustomed to using the SuperFonts commands instead of the AppleWorks options, but after a while it becomes second nature to insert the SuperFonts code instead of the AppleWorks command.

Much of the attractiveness of SuperFonts' output stems from the program's extensive use of proportional fonts. While AppleWorks supports proportional fonts on some printers, the program limits you to the one or two fonts built into your printer. SuperFonts uses the printer's graphic capability to create a variety of pro-

portional fonts not available in your printer's standard character sets.

In addition, SuperFonts overcomes some of the weaknesses inherent in AppleWorks's implementation of proportional fonts. For example, AppleWorks does not offer full justification when you invoke a proportional font. SuperFonts lets you combine proportional fonts and full justification. AppleWorks does not have "true" tabs: You cannot line up columns or indent paragraphs when using a proportional font in AppleWorks. SuperFonts adds "true" tabs: You can print tables and charts with proportional space characters. [Ed: When you press the Tab Key in AppleWorks, the program inserts spaces in your text file. Those spaces change in size when you invoke a proportional font, so the non-proportional screen display in AppleWorks does not match the printed proportional-space output. SuperFonts adds a true Tab Command so you can specify the size of any tab in inches or fractions of an inch. The Tab Command lets you line up columns and indent paragraphs.]

font repeatedly throughout the document. You specify the font for any segment of text by entering the font or picture number surrounded by special symbols. That font remains in effect until SuperFonts encounters a command to invoke a different font. For example, if you define the fonts at the beginning of a document so that font #1 is Helvetica.12 and font #2 is Times.24, the string <1> embedded in your text will switch the printer into 12-point Helvetica and the string <2> will print 24-point Times. (You must type "<<" to print a "<" symbol in your document.)

The inset in *Figure 1* is an example of the codes that produce a document with a centered headline in 24-point Times, body copy in 12-point Helvetica, and some words in italics.

SuperFonts recognizes most AppleWorks word processing Option Menu commands such as margins, justification, spacing, mail merge, and printing enhancements such as boldface. You enter those codes as if you are going to print with AppleWorks. However, not all AppleWorks commands work when you print with SuperFonts. Most significantly, Super-

Using SuperFonts' Alternate Character Sets

The alternate character sets available for each font are a mystery to most users; it is difficult to find a chart that depicts the characters in the alternate sets. While you can print your own charts to show the characters in the alternate sets, there is an easier way. The word processor file "Sample 7" on the SuperFonts disk is a template that prints a sample of all the characters available in a particular font. You can use AppleWorks to change the font defini-

tion at the beginning of this file and use the Sample 7 template to prepare charts depicting all the characters available in any font.

UltraMacros Can Make SuperFonts Easier

Entering all the SuperFonts codes necessary to use the alternate character sets can be a tedious process. For example, to print "©1988" you must enter 15 different keystrokes (<x2>i<x1>1988). The symbol "x2" calls the second character

set. The letter "i" represents the copyright sign in the second character set. The symbol "x1" returns the printer to the standard characters.

You can use a macro program to automate your access to the second character set. The UltraMacros macro to insert any character from the second character set is as follows:

```
x: <awp><print "<x2>":input:
    print "<x1>">!
```

appear at the beginning of a line and no other text or codes can appear on that line.

Pictures printed with SuperFonts can be cropped by giving the coordinates of the top left and bottom right corners of the cropped image.

Unfortunately, SuperFonts cannot wrap text around a picture, but pictures can be printed full size, magnified, or reduced in size. Even double high resolution pictures can be inserted into SuperFonts documents if they are in "Dazzle Draw" format or combined into a single file before printing. (Beagle Graphics pictures stored as two files must be combined into a single file before printing.)

Configuring SuperFonts

You must configure SuperFonts to work with your printer and interface card. In addition, SuperFonts must know where to find the fonts and pictures used in your documents. Configuring SuperFonts for your hardware is relatively easy; you run the Utilities program that is included on every TimeOut disk. SuperFonts lets you select your printer and interface card from a list of 48 printers and 56 cards that work with SuperFonts. However, you must know about pathnames to specify the location of the fonts which are generally stored in subdirectories on a fonts disk.

[Ed: For more information about ProDOS pathnames, see the article entitled "What AppleWorks Users Should Know about ProDOS Pathnames" in the November 1986 issue of the AppleWorks Forum.]

Figure 3 includes a list of the printers and interface cards that work with SuperFonts. Unfortunately, this list does not appear on the SuperFonts package or in the documentation. While it is obvious that Beagle Bros tried to accommodate the most popular printers and interface cards, do not buy SuperFonts if your printer or interface card is not on the list. You cannot configure the program for custom printers or for interface cards not included on the SuperFonts menus.

Printing the Document

Most of the work involved in using SuperFonts occurs when you create a document. Printing the document is easy. Call up the TimeOut Menu by entering an Apple-Escape, select SuperFonts, and follow the on-screen menus to preview the document. (The ability to preview a document is an important feature of SuperFonts.) If you want to revise the document, press the Escape Key until you return to AppleWorks, make the changes, and repeat the process of calling up SuperFonts and previewing the document on the screen. When the document is

ready to print, invoke the Print option on the SuperFonts Menu, select the print quality you desire, and print the file.

SuperFonts offers three levels of print quality; Draft, Standard, and High Print Quality. The higher the level of print quality specified, the more attractive the output and the longer it takes to print a document. *Figure 1* is an example of a SuperFonts document printed at High Print Quality. The quality of the output is exceptional, but there is a price to be paid. Printing in High Print Quality

is s-l-o-w. You will have a chance to get away from the computer for some needed rest while you print a multi-page file. Print a long document and you'll be able to see a feature-length movie!

Additional SuperFonts options let you specify settings of "Tall Adjusted" or "Reduce 50%". Tall Adjusted selects an alternate dot density that causes printouts to be printed with a true 1:1 aspect ratio. The Tall Adjusted option is useful when you include geometric shapes in documents; it helps keep your circles round.

The Reduce 50% option shrinks the output by 50% in both horizontal and vertical directions. The Tall Adjusted and Reduce 50% options do not work on all printers; consult *Figure 3* to determine if these options are available on your printer.

Documentation

The SuperFonts manual is well written and makes it easy to get started with the program. However, the documentation could use more examples. While there are eight samples of SuperFonts-enhanced documents on the program disk, more printed examples with annotations in the manual would be helpful. This is particularly true in the area of graphics. Combining pictures into AppleWorks documents is not easy; the SuperFonts manual helps you get started, but more guidance is in order.

Figure 3: Supported Printers and Interface Cards

PRINTERS

Apple DMP	Epson MX-70 *†	Mannesmann Tally	Star Gemini 10/15 *
Apple ImageWriter	Epson MX-80/100 *	Spirit-80 *	Star Radix 10/15 *
Apple Scribe	Epson RX-80 *	NEC PC-8023/8025 *	Star SD 10/15 *
C. Itoh Prowriter! *	IBM Compatibles	Okidata 82/83 *†	Star SG 10/15 *
Epson AP-80	IDS Micro Prism 480/80/132 *†	Okidata 84/92/93 †	Star SR 10/15 *
Epson FX-80 *	IDS Paper Tiger *†	Panasonic	Transtar 315 *†
Epson LQ-800/1000/1500 *	Legend 1385	KX-P1091/1092 *	
Epson LX-80 *	Mannesmann Tally 160/180	Star Delta 10/15 *	

* Does not have the capability to print "Tall Adjusted". † Does not have Standard, High Quality or Reduce 50% capability.

INTERFACE CARDS

Apple IIc Serial Port	CCS 7720 Parallel	Grappler	Omnigraph	SSM-APIC
Apple IIc Serial to Parallel	CCS 7728 Parallel	Grappler+	Pkaso/Pkaso U	SSM-ASIO
Apple IIGS Serial Port	Dispatcher	Grappler Serial	Pretty Print	Texprint Print-It
Apple Centronics Parallel	Dual-Comm Plus	Microbuffer II	Printer Pro	Tymac
Apple Communications Card	Dumpling 64	Microtek RV-611C	Printerface	Versacard Parallel
Apple Parallel	Dumpling GX	Microtek SV-622C	Printermate	Versacard Serial
Apple Serial Card	Epson APL	Mountain Computer Parallel	Printmax	Videx PSIO Parallel
Apple Super Serial	FingerPrint	Mountain Computer Serial	Quadram APIC	Videx PSIO Serial
Apricom Serial	FingerPrint Plus	MPC AP-80	Spies Niceprint	Videx Uniprint
CCS 7710a Serial	Parallel	MPC AP-Graph	Spies Super-MX	Wizard IPI
	Firmware		SSM-AIO Parallel	
	Grafstar		SSM-AIO Serial	
	Graphicard		SSM-APIO	

The manual should include more reference material. For example, users need samples of all the characters available in the different fonts and character sets, particularly in the two graphic fonts.

Overall, I consider the documentation "good". It helped me get started and describes most of the ways to use SuperFonts. However, it does not have the depth I want to help me use the more advanced features of this powerful program.

Other Enhancement Products

SuperFonts is not the only program that adds enhanced printing features to AppleWorks; two older products, Printrix and GraphMerge, offer some of the features found in SuperFonts.

Printrix is a stand-alone program that reads AppleWorks files and produces exceptionally well formatted output. Printrix has a number of capabilities not available in SuperFonts, including the ability to print an unlimited number of fonts in any document, the ability to produce newspaper-style columns, and the ability to wrap text around graphics.

Unfortunately, Printrix has a serious limitation: it is not integrated with AppleWorks. Consequently, Printrix does not let you edit either the text or format commands in the original AppleWorks word proces-

Why You Can't Use a Print Buffer to Speed Up SuperFonts or Printrix

SuperFonts and Printrix share one significant disadvantage: they both slow down the output from your printer. The printing is slower because both programs ignore the character sets built into the ROM chips in your printer. Instead of sending "print character" codes to your printer, both programs send graphic images; they tell the printer where to print each dot on the screen.

A print buffer is a memory device that stores signals sent to the printer. It tricks your computer into thinking that a document was printed, when the document is only stored in the buffer's memory.

When you send character codes to the printer, each byte represents one character. A 64K print buffer can store 15-20 single-spaced pages of text. But when you send graphic images to the printer, it takes dozens of bytes for each character. Most print buffers are too small to store graphic images. The buffer quickly fills up and the computer and printer work as if there was no buffer in the system.

sor file. To change or correct the content or format of a document, you must quit Printrix, reboot AppleWorks, and modify the original AppleWorks file. Then you save the AppleWorks document and repeat the cycle until you produce a final document. This is a tedious process.

While Printrix can produce a more elegant and sophisticated document than SuperFonts, Printrix is far more difficult to use. Printrix is well-suited for Apple II users who want to turn AppleWorks files into professional-looking newsletters and publications.

Another product, GraphMerge, lets you enhance AppleWorks word processor documents without leaving AppleWorks.

GraphMerge is a Pinpoint Desk Accessory that lets you insert up to 16 graphic images into an AppleWorks document. While GraphMerge can produce printouts that include both text and graphics, the

product is not designed to compete with the power of SuperFonts. For example, GraphMerge uses the standard fonts built into a printer for any text in a document; the program does not have a high-quality print mode. Unlike SuperFonts and Printrix, GraphMerge does not let you preview your output. GraphMerge and SuperFonts do not let you mix graphics and text on the same line, so you cannot wrap text around graphic images; Printrix lets you mix text and graphics.

GraphMerge is inexpensive; it is included on the Pinpoint Desk Accessories disk. While you can buy the complete collection of desk accessories (*sans* Spell Checker) for \$50 from discount dealers, GraphMerge does not offer the performance and power of SuperFonts.

Recommendation

In conclusion, TimeOut SuperFonts adds exceptional functionality to AppleWorks. It lets AppleWorks users get Macintosh-like output in the user-friendly AppleWorks environment on a standard Apple II series computer. SuperFonts is easy to learn and use, and should be considered by anyone who wants to use the capability of a dot matrix printer to enhance the appearance of their documents. ■

[SuperFonts costs \$69.95 from Beagle Bros, 6215 Ferris Square, Suite 100, San Diego, California 92121.]

[Printrix costs \$65 from Data Transforms, 616 Washington, Denver, CO 80203 ((303) 832-1501). Printrix is sold with a 30-day money back guarantee.]

[Bruce Shanker is a mathematics teacher at Kensington High School in Philadelphia, Pennsylvania. As NAUG's "Beagle Buddy", Bruce updates members' TimeOut programs at a nominal cost. Details of the TimeOut upgrade offer appear on page 15 of the June 1988 issue of the AppleWorks Forum.]



*Requires Apple IIe or IIGS (64K min.)

Prepare to be blown away by your Apple.™

*Phasor produces sound effects, music, and speech so striking,
Applied Engineering feels you should be warned.*

Have a weak heart? Don't read any further. And by all means, *don't go near* an Apple IIe, II+ or IIGS equipped with the new Phasor sound synthesizer from Applied Engineering.

But those of you with the right stuff ... prepare yourself. Because the Phasor is like nothing you've heard before. It's a sound effects synthesizer that makes games explode into life. A music synthesizer that will stun you with 4 watts of stereophonic sound. And a speech synthesizer so realistic, it will send shivers up your spine.



*"I recommend Applied
Engineering products
wholeheartedly!"*

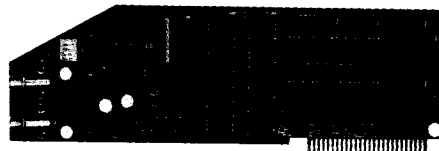
*Steve Wozniak, the creator
of Apple Computer*

What's best, the Phasor works with more off-the-shelf software than any other sound card you can buy. So now all your favorite games — like Skyfox™, Under Fire™, Willy Byte™, Tactical Armor Command™, Maze Craze™, Zaxxon™ and Ultima IV™ — can have shattering sound effects. Educational packages like Music Construction Set™, Guitar Master™ and Music Star™ are also dramatically enhanced.

The Phasor has *four times* the output power and *twice* the accuracy of any other sound card — but of course, you can easily turn down the volume if you need a rest. The Phasor is equipped with 12 simultaneous sound channels, 4 white noise generators, and a voice channel expandable to 2 voices. Programs written for other sound cards, including Mockingboard™, ALF music card™, Synphonix™ and the Super Music Synthesizer™, sound even better with the Phasor. And you can control speech, pitch, volume and more with simple commands.

The Phasor comes with its own easy-to-use software (ProDOS based), including 30 ready-to-run, non-copy protected songs and sound effects along with a Music Editor, Sound Effects Editor and Text to Speech program. And of course, it carries our 15 day money back guarantee and five-year warranty.

Order a Phasor for your Apple today — and prepare to be blown away! Call (214) 241-6060 to order (9 a.m. to 11 p.m. 7 days). Or send check or money order for \$169 to:



AE APPLIED ENGINEERING™
The Apple enhancement experts.

P.O. Box 5100, Carrollton, TX 75011 (214) 241-6060

How to Use the AppleWorks Clipboard

by Cathleen Merritt and Warren Williams

One of the important differences between a beginning and an intermediate level AppleWorks user is the intermediate user's comfort with the AppleWorks clipboard. In this article, we will describe the clipboard and outline different ways to use this helpful AppleWorks tool.

What Is the Clipboard?

The AppleWorks clipboard is a place in the computer's memory where you can temporarily store data. The clipboard is appropriately named. It is like having a clip on the side of the computer where you can attach notes or other information you want to reuse at a later time.

You can use the clipboard to transfer data between word processor files, between data base files, or between spreadsheet files. You can also use the clipboard to transfer data from the spreadsheet and data base modules into the AppleWorks word processor. However, you cannot use the clipboard to transfer data between spreadsheet and data base files nor from the word processor into either the spreadsheet or data base. AppleWorks lets you transfer data between these modules, but it is not a simple clipboard process.

Figure 1 depicts the ways the clipboard links the different AppleWorks modules.

When to Use the Clipboard

It's difficult to consider all the possible uses for the AppleWorks clipboard. For example, imagine you are writing a report in the AppleWorks word processor and you have a good idea for a paragraph. You can type that paragraph anywhere in the word processor document and use the Apple-M command to move the paragraph onto the clipboard. The paragraph disappears from the document, but

Figure 1: How to Use the Clipboard

Copy or Move to the Clipboard

- Word Processor → Word Processor
- Data Base → Data Base
- Spreadsheet → Spreadsheet

Print to the Clipboard

- Data Base → Word Processor
- Spreadsheet → Word Processor

Not Possible with the Clipboard

- Word Processor → Data Base
- Word Processor → Spreadsheet
- Data Base → Spreadsheet
- Spreadsheet → Data Base

remains in memory. When you find a suitable location for the paragraph, you can once again use the Move Command to move the paragraph from the clipboard and place it in the document.

You can also use the clipboard to store data you want to copy from one file to another. For example, imagine that you want to write numerous letters that all contain the same closing paragraph. You can write one copy of that paragraph and use the Apple-C command to copy that paragraph onto the AppleWorks clipboard. Now, when you want to use that paragraph in a new letter, you can use the Copy Command to place a copy of the paragraph into a new document.

You will find other uses for the AppleWorks clipboard. For example, if you are writing a letter and need an alphabetized list of names, you can enter the names into a spreadsheet, use the Apple-A command to alphabetize the list, "print" the spread-

APPLIED ENGINEERING and the rest of the best ...always for less and in stock.

Now accepting school purchase orders!

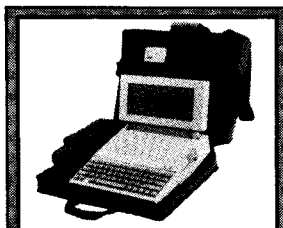
APPLIED ENGINEERING

(additional AE items in stock)

GS-RAM, 256K
\$164
Z-RAM Ultra 1, 256K
\$164
Z-RAM Ultra 2, 256K
\$216
Z-RAM Ultra 3, 256K
\$276
GS-RAM PLUS, 1 Meg
\$478
RamFactor, 256K
\$201
RamWorks III, 256K
\$164
RWIII, Expander, 1 Meg
\$515
RamFactor Expander, 1 Meg
\$515
RamCharger for RamFactor
\$137
Transwarp
\$169
PC Transporter 256K
\$388
Phasor
\$138
DataLink
\$169
RamKeeper (//GS, Bat/BU)
\$147

PORTABLE SYSTEM

Prairie Pwr System, Battery
Pack (8 Hr, UPS) & Case
\$139
C-VUE LCD Flat Monitor
\$349
Cigarette Lighter Adapter
\$25
World Port 1200 Modem
\$169



**AUGUST
SPECIAL**

Prairie Power
Portable System*
Battery Pack
(8 Hr, UPS) & Case
Reg. \$1299 Now \$799
*C-VUE & Z-RAM not included

SOFTWARE

(Sorry, no software refunds)

DB MASTER
Version Five
\$149
AppleWorks 1.3
Special Version
\$99
Locksmith 6.0
\$49
Copy II Plus
\$35
Bag of Tricks
\$44
Beagle Brothers
Timeout Series
► Call

RAMUP 4.0
\$40
EASY DRIVE
\$70
Leisure Suit Larry
\$31
Space Quest
\$39
Thexder
\$29

EXPRESS MAIL
Now Available
delivery 7 days a week!

HARDWARE

Diconix 150 Printer
\$399
//e Enhancement Kit
\$62
Numeric Keypad (//e)
\$69
G STEREO (GS) (A.I.)
\$49
CMS 20 Meg (SD) (//e, GS)
\$650
CMS 43 Meg (SD) (//e, GS)
\$825
CMS 60 Meg
\$900
Kensington GS System Saver
\$79
Meiji 5.25 ½ Height Drive
\$80
Applied Time II Clock (A.I.)
\$49
Apricord Parallel Interface
Adapter (//c)
\$54
No Slot Clock Pro
\$55
Ext. 80 Col. Card (A.I.)
\$39
Serial/Parallel Cables
\$19
AB Switch box (Ser/Par)
\$29
ABCD Switch box (Ser/Par)
\$39
A+ Optical Mouse (//c)
\$83
Disk Notcher
\$10
Mouse Pad
\$13

WE ACCEPT:



VISA and MasterCard + Bank Wires
School Purchase Orders (Net 30)
Certified Checks + Money Orders
Call for shipping, handling & insurance.
NO PERSONAL CHECKS
Minimum Order \$50
Sorry, no shipping, insurance
or handling refunds.
Not responsible for product compatibility.
Prices subject to change without notice.

Novice Notes...

sheet to the clipboard, and
move the list of names into
your letter.

When to Copy, Move, or "Print"

There are three ways to get
data onto the AppleWorks
clipboard. You can use the
Apple-C command to copy
the data onto the clipboard,
use the Apple-M command to
move the data, or use the
Apple-P command to "print"
the data. But when should you
use each command?

Apple-C: Use the Apple-C
command if you want to copy
some data and still retain the
original data in your file. For
example, use the Apple-C
command if you want to copy
a paragraph from one letter
into other letters. Copy the
paragraph onto the clipboard,
use the Apple-Q (Quick
Change) command to switch
to a different word processor
document, then use the
Apple-C command to copy
the paragraph from the clip-
board into the new document.
When you tell AppleWorks to
copy "From the clipboard",
the data on the clipboard is
duplicated in your current
document. A copy of the data
remains on the clipboard for
future use.

You can also use the Copy
Command to make copies of
an existing data base record
without destroying the origi-
nal. Follow these steps to
copy a record from one data
base into another data base
file:

ORDERS ONLY:
1-619-274-1253
(within CA)
1-800-438-2883
(outside CA)

All Prices FOB San Diego
15% (\$15 min.) restocking fee

**Roger
Coats**

P.O. Box 171466
San Diego, CA 92117

**PRICES QUOTES &
TECHNICAL SUPPORT:**
1-619-274-1253

If you don't see it, CALL US!
Next-day delivery available

Novice Notes...

1. Get the original data base on the screen.
2. Use the Apple-C command to copy one or more records onto the clipboard.
3. Use the Apple-Q (Quick Change) command to switch to the new data base.
4. Use the Apple-C or Apple-M command to copy or move the records from the clipboard into the new data base file.

Be careful when transferring records between data base files: Make certain you have identical categories in each data base. Otherwise you will get names, addresses, dates, and other data placed in the wrong categories as you copy them from the clipboard into the new file.

Apple-M: Use the Apple-M command to delete data from its current location and move it to a new location in any file created with the same AppleWorks module. For example, you can use the Apple-M command to move word processor text to the AppleWorks clipboard. When you use the Move Command, the data will be removed from the current file and placed on the clipboard. You can then use the Apple-C or Apple-M commands to move the data from the clipboard into any other file created by the same AppleWorks module.

When you move data "From the Clipboard", data is transferred from the clipboard into your AppleWorks file. This process empties the clipboard.

Apple-P: Data you copy or move onto the clipboard can only be used in the same AppleWorks module. You can use the Apple-C and Apple-M commands to move data from one word processor file to another, from one data base to another, or between two spreadsheet files. However, you cannot use the Apple-M or Apple-C command to move or copy data *between* modules. For example, you cannot use the Apple-M command to move data from a data base file into a spreadsheet.

While AppleWorks makes it possible to move data between any two modules, beginners should only

consider transferring data from the spreadsheet and data base modules into word processor documents. The availability of the AppleWorks clipboard makes those transfers easy.

The trick to transferring data into the word processor is to use the Apple-P command to "print" your data onto the clipboard. Here's how:

From data base to word processor: To transfer data from the data base to the word processor module, create a tables-format or labels-format report in the data base and "print" that report to the word processor clipboard. AppleWorks will display a list of available printers; that list always includes the choice "To the clipboard for the word processor". Select that option and your report will be "printed" onto the word processor clipboard. You can now use the Apple-Q command to switch to a word processor document and use the Apple-C or Apple-M command to copy or move the report from the clipboard into your document.

From spreadsheet to word processor: The process of transferring data from the spreadsheet module to the word processor is similar. With a spreadsheet on the screen, issue an Apple-P command, select the portion of the spreadsheet you want to transfer, and "print" the data onto the clipboard. Use the Apple-Q command to bring a word processor document on the screen and issue an Apple-C or Apple-M command to copy or move the spreadsheet data from the clipboard into the word processor document.

The AppleWorks clipboard is a flexible and powerful tool. The more you use the clipboard, the more applications you will find for this clever AppleWorks feature. ■

[Warren Williams teaches in the Educational Technology program at Eastern Michigan University. He is a technical advisor to NAUG and a frequent contributor to the AppleWorks Forum.]

***The more you
use the
clipboard, the
more
applications
you will find for
this clever
AppleWorks
feature.***

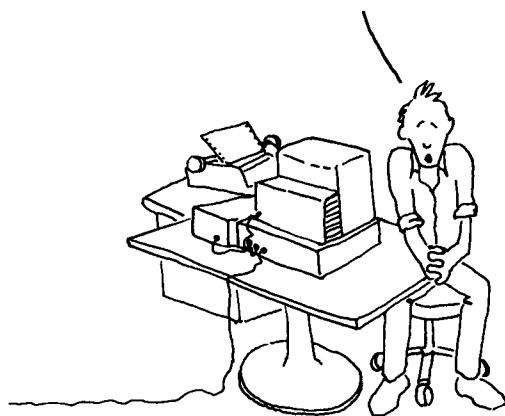
New! EasyDrive & RAMUP 4.0

The Storage Management Team

*If only I had storage management software that could give me complete control of my hard-disk by installing itself onto my hard-disk and then installing my programs automatically . . .
... it could have a menu where I could choose the applications I want by just touching a key . . .
... it could run programs, remove programs, back up, restore, index, copy, and other stuff, too, automatically. And it could be incredibly fast and easy to use.*

And there could be another program just like it, for my RamCard. It could load my programs onto my RamCard and present them to me on a menu . . . and I could flip from program to program like turning a page . . . and would have great features like autoloader, back up, restore and statistical displays. And it could be incredibly fast and easy to use.

*And they could work together to give me the greatest storage management system ever . . .
... and come with a manual that could explain ProDOS in a way that even I could understand . . .
... and be sold and serviced by friendly people . . . and be affordable . . .*



Your prayers are answered.

You need powerful storage management. It's an absolute must for today's Apple user. Having a RamCard and/or Hard-Disk is great, but unless you can use them with speed and ease, you're not doing yourself any favors.

EasyDrive (for the Hard-Disk) and RAMUP 4.0 (for the RamCard) are the ONLY

utility programs of their kind — bringing speed and manageability to your computer — bridging the gap between you and your Hard-Disk/RamCard.

Nothing is faster — nothing is easier. If you have a Hard-Disk or RamCard or both, you need EasyDrive and RAMUP 4.0.

EasyDrive \$69.95
RAMUP 4.0 \$39.95
EasyDrive/RAMUP Combo \$94.95

DEAR DEALER: EasyDrive and RAMUP 4.0 are available to you at a significant discount.



Quality Computers

POWER FOR PERFORMANCE

15102 Charlevoix
Grosse Pointe, MI 48230 (313) 331-0700

We carry a full line of Hard-Disks, RamCards, and programs of every kind. Call today for current prices. All our products are backed by a 30 day money back guarantee. When ordering a Hard-Disk, ask about our Hard-Disk Insurance Plan, and repair service. With your purchase you'll receive, free, *Enhance*, our technical, informative, entertaining newsletter. We are THE full service dealer.

AE APPLIED ENGINEERING™

Transwarp	Time Master
RamKeeper	View Master
RamCharger	PC Transporter
Serial Pro	RamWorks III
Data Link	RamFactor
Phasor	GS Ram
Parallel Pro	GS Ram +
	Z Ram I, II, III



20 Meg. SD
40 Meg. SD
60 Meg. SD
SCSI Controller

Sider

20 Meg.
40 Meg.
C46
C96
T6

HARD-DISKS

IN STOCK!

To Order Call: 1-800-443-6697

How to Get Help with AppleWorks-Compatible Software

by William Marriott

Each month, the *AppleWorks Forum* lists the member-volunteers who offer technical support for AppleWorks products. This month's list identifies the volunteers who can answer questions about popular AppleWorks add-on programs and templates. Next month's issue will contain a list of members who offer help with applications of AppleWorks and Apple IIGS-specific questions.

Software Add-Ons

How to Use This List

Use this month's list to find help with popular AppleWorks software add-ons. To the left of each volunteer's name is one or more numbers indicating the enhancements the consultant supports. Volunteers are listed alphabetically by state.

1 = 1040Works
2 = AutoWorks
3 = GraphWorks
4 = ThinkWorks
5 = MegaWorks

6 = ReportWorks
7 = RAMUP
8 = SchoolWorks
9 = Sensible Grammar
10 = Sensible Speller

California

2,4,7,8, Robert Demmon
9,10 Coronado CA
619/ 435-0554 M-F 3pm-10pm;
S-S 9am-10pm
619/ 435-0520 M-F 3pm-10pm;
S-S 9am-10pm

1,2,7 Terry Higgins
Hayward CA
415/ 887-7499 Daily 8am-11pm ans w mach
NAUG BBS #117
GEnie T.HIGGINS1
The Source SIG049

7,10 Berenice Maltby
Corona del Mar CA
714/ 640-7369 9am-9pm

2 Will Nelken
San Rafael CA
415/ 456-1798 M-F 10am-3pm
415/ 459-0845 M 3pm-9pm;
Sat 10am-10pm

2,7 Jim Pennington
Long Beach CA
213/ 420-8629 24-hr. ans w mach

Colorado

2 Lyle Graff
Littleton CO
303/ 977-4557 M-F 8am-3pm
303/ 794-5970 M-F 6pm-9pm;
Sat Noon-9pm

Connecticut

5 John R. Robinson
Niantic CT
203/ 739-7435 Daily 9:30am-2pm

7,9,10 Emery Roth
Washington CT
203/ 868-7118 Daily 3pm-8:30pm

9 Newton Shaffer
Gales Ferry CT
203/ 464-9716 Daily 4pm-11pm

Florida

1,6 John Andrianoff
Ft. Pierce FL
305/ 466-6653 School Days 3:30pm-
8:30pm;
Other Days Noon-8pm

4,5 Jeff C. Strichard
Ft. Lauderdale FL
305/ 587-9590 M-F 6pm-11pm; S-S all day
305/ 763-3883 M-F 9am-4pm

Illinois

9,10 Dennis Ricke
St. Charles IL
312/ 377-4829 School Hours

Indiana

5 Stanley Boler
Knightstown IN
317/ 345-5663 M-F 5pm-11pm

Iowa

- 4 Dan York
Marion IA
319/ 373-1883 M-F 5pm-10pm;
S-S 10am-10pm
319/373-2083 M-F 5pm-10pm

Kansas

- 9,10 Laughlin Jan
Mapleton KS
316/ 743-3441 Daily 9am-4pm

Maryland

- 1,3,4,5, Ronald Romanowicz
6,9,10 Glencoe MD
301/ 472-4800 Daily 8am-4pm
301/ 472-2983 Daily 4pm-11pm
- 7,9,10 Michael Spurrier
Baltimore MD
301/ 298-0263 S-S 6pm-11pm
301/ 955-5938 11am-1pm School Days

Michigan

- 5 Dawn Andrews
Muskegon MI
616/ 755-4308 M-F 4pm-10pm
- 7 Joe Connelly
Livonia MI
313/ 421-8729 M-F 9am-9pm
NAUG BBS #21
- 2 Lynn Leininger
Monroe MI
313/ 241-4021 M-F 4pm-10pm;
S-S 10am-10pm
NAUG BBS #313
Compuserve 73277,2420
- 1 Bill Neef
Grass Lake MI
517/ 522-4689 Daily 8am-10pm
- 10 J. O'Connor
Rochester MI
313/ 853-1260 Daily 10am-9pm
NAUG BBS #99
- 2,7,9 Quality Computers
10 Grosse Pointe MI
313/ 885-4270 Daily 9am-5pm
- 7,9 Mike Robinson
Royal Oak MI
313/ 585-5027 M-F 6pm-10pm;
S-S 10am-10pm
NAUG BBS #411
Michigan AppleGram 313/ 292-0389 #15
- 10 Pete Ross
Wayne MI
313/ 728-8720 answ mach
- 2,9,10 Keith Zuuk
Grosse Ile MI
313/ 675-1550 Daily 8am-4pm

Minnesota

- 7 James Hirsch
Coon Rapids MN
612/ 755-8082 M-F 6pm-10pm
612/ 755-8220 M-F 7:30am-4pm
GEnie JHIRSCH
- 1,10 Dick Kenfield
Hopkins MN
612/ 938-4382 M-F 4pm-9pm; S-S all day
Compuserve 71540,373

Missouri

- 4,9,10 Whit Crowley
Manchester MO
314/ 394-7955 M-F 6pm-9pm;
S-S 10am-6pm
Compuserve 70176,1167
- 6 Lynn Leopard
Chillicothe MO
816/ 646-0702 M-F 8am-8:30am;
2:30pm-3:30pm
816/ 646-4196 Daily 5pm-9pm

Nebraska

- 2,9,10 Larry B. McEwen
Hastings NE
402/ 463-1387 M-F 8am-4pm
402/ 463-2267 Daily 5pm-9pm
NAUG BBS #188
GEnie L.MCEWEN

New Jersey

- 4 Les Blatt
Maplewood NJ
Compuserve 73647,3157
- 5 Edwin C. Doe
Pt. Pleasant NJ
201/ 528-6349 8am-11pm ans. serv. or
modem
GEnie E.DOE
201-528-6349
- 5 Matthew Jones
Neptune NJ
201/ 774-0983 M-F 6pm-8pm
- 9,10 Linda Nixon
Chatham NJ
201/ 635-0973 M-F 5pm-9pm;
S-S 11am-5pm
- 7 David Jay Scott
Wall NJ
201/ 681-0600 Daily 6pm-10pm

New York

- 2,3,6,7 Bob Beer
Coram NY
516/ 928-6870 Daily 6pm-9pm
- 2 Sister Mary Gregory
Watertown NY
315/ 782-3460 M-F 3pm-9pm
315/ 788-4670 Daily 2pm-3pm
- 2,7,9, 10 Don Menges
Rochester NY
716/ 544-9398 Daily 8pm-11pm
NAUG BBS #126
Compuserve 75776,443
GEnie VSXER
- 7 Harold S. Miller
Ozone Park NY
718/ 641-5208 Daily 10am-5pm;
M-F 7pm-9pm
- 2 Walter Taylor
W. Henrietta NY
716/ 263-7700 ext. 269 M-F 8am-5pm
716/ 359-2857 Other
716-235-3698 Box 0070

Ohio

- 6,7 Mark Ball
Paris OH
216/ 862-3277 M-F 6pm-10pm
216/ 627-7606 M-F 8am-3pm

Codes

- 1 = 1040Works
2 = AutoWorks
3 = GraphWorks
4 = ThinkWorks
5 = MegaWorks
6 = ReportWorks
7 = RAMUP
8 = SchoolWorks
9 = Sensible Grammar
10 = Sensible Speller

- 7 Mark Elliot
Hudson OH
216/ 686-2280 M-F 9am-5pm
216/ 653-5006 S-S 6pm-11pm
GEnie G.ELLIOT
- 7 Carman Greco
St. Clairsville OH
614/ 695-5026 M-F 3pm-9pm;
S-S 9am-9pm
- 8 Guy R. Moore
Oxford OH
513/ 746-6333 M-F 9am-4pm
513/ 529-7584 M-F 8am-4pm
513/ 523-3797 Daily 7pm-10:30pm
- 9,10 Howard Moskowitz
Toledo OH
419/ 729-8412 M-F 8am-4:30pm
419/ 535-8647 M-F 5pm-10pm;
S-S 10am-10pm
CompuServe 73547,337

Oregon

- 5,8,9 Jim Emig
Portland OR
503/ 280-5666 M-F 7am-4pm
503/ 771-1916 M-F 6pm-9pm;
S-S 10am-10pm

Pennsylvania

- 10 Martin Friedman
Philadelphia PA
215/ 473-6135 M-S 3pm-10pm
NAUG BBS #45
Compuserve 76676,1057

Tennessee

- 9,10 Major Michael Sutter
Clarksville TN
502/ 798-8203 Daily 6am-2pm
615/ 552-0973 Daily 5pm-9pm

Texas

- 2,7 Richard Buro
Temple TX
817/ 778-0386 Daily 6am-9pm answ mach
- 9,10 Joseph Kline
Lubbock TX
806/ 796-0829 Daily 8am-9pm

Software Add-Ons...

- 2,7 Ralph Logan, Jr.
Fort Worth TX
817/ 281-0661 TThF 2pm-5pm
GEnie R.LOGAN2
Fort Worth STARTEXT 50411
- 5,7,10 Bob Oberholtzer
Houston TX
713/ 664-2011 M-F 9am-6pm
713/ 664-1795 M-F 6pm-8:30pm;
Sat 2pm-7pm
713/ 664-2011 24hr answ serv

Vermont

- 8 Lars Baris
Essex Jct. VT
802/ 878-1392 Daily 7am-2pm

Virginia

- 1 H. Joseph Dobrowolski
Langley AFB VA
804/ 865-7520 T-Th 7pm-9pm

Washington

- 5 Thomas Chambers
Fox Island WA
206/ 549-4114 M-F 5pm-9pm;
S-S 10am-10pm

Wisconsin

- 4,6,9,10 Neil Johnson
Eau Claire WI
715/ 834-8104 M-F 8am-3:45pm
- 7 Paul Van Wyk
Appleton WI
414/ 731-0941 Daily 9am-4pm
414/ 739-6503 Daily 7pm-10pm

Foreign/Mexico

- 2,5,6 Harve Thorn
Mexico City Mexico
905/ 516-0720 ext 135 M-F 8am-2pm

Corrections

The June 1988 issue of the *AppleWorks Forum* incorrectly identified the current version of SuperFonts. The current version number is 1.1.

NAUG BBS Receives 10,000th Call

Joe Connelly of Livonia, Michigan, was the 10,000th caller to NAUG's bulletin board, the Electronic Forum. Joe will receive a one-year extension to his NAUG membership.

Access to the Electronic Forum is free to NAUG members. The system serves as a 24-hour support-line to answer your AppleWorks questions. The board also contains dozens of templates and add-on programs you can use with AppleWorks. Directions to help you use the Electronic Forum appeared in last month's *AppleWorks Forum*.

Electronic Index Disk Update

The list to the right contains the July 1988 update for NAUG's Electronic Index Disk. The first section contains the data for the file "Forum Index". The second section contains the data for the file "Key Words". Directions for updating the Index Disk appeared in the February 1988 *AppleWorks Forum*.

NAUG updates the Electronic Index Disk monthly. The latest version can be ordered from the NAUG Public Domain Library (\$4 per disk; \$2 postage per order). Current updates can also be downloaded from the NAUG bulletin board, (313) 482-8090.

Electronic Index Disk July 1988 Update

Enter the standard values for these categories: Volume #: 3 • Issue #: 7 • Date: Jul 88

Enter the rest of the data in the order: TYPE • PAGE • TITLE • AUTHOR • KEY WORDS

- Editorial • 2 • The Next Version of AppleWorks • n/a • Robert Lissner; Claris; AppleWorks; StyleWare; gsWorks
- Letters to NAUG • 3 • Printer Setup Problems • Giermek, Stanley • printer; Orange Micro; Grappler; interface cards
- Letters to NAUG • 3 • How to Delete Damaged Files • Lewty, Harry • ProDOS; disk files
- Letters to NAUG • 4 • ASCII Files without Returns • Moore, Barry • ASCII; file conversions
- Letters to NAUG • 4 • Making TimeOut Memory-Resident • Sturtevant, Steve • TimeOut; RAM cards; RAM disks
- Hardware Review • 6 • Zip Chip: An Effective Way to Speed Up AppleWorks • Rodwell, David; Rodwell, Paul • Zip Chip; Zip Technology; TransWarp; accelerator; speed
- Hardware Review • 7 • Zip May Face Competition Soon • n/a • Zip Chip; AppleFest; Rocket Chip; Bits and Pieces; accelerator
- Novice Notes • 11 • An Easier Way to Get Underlining and Boldface • Smith, Jim • printing effects; formatting; boldface; underline
- Macro Tips • 11 • A Macro that Counts Records • Munz, Mark • Data Base; UltraMacros; counts
- Advanced Techniques • 12 • How to Save Copies of Screens on Disk • Hexum, Tom • Apple-H Printer; disk printers; BBS; disk files; screen dumps
- Software Review • 14 • TimeOut SuperFonts: Impressive Output for AppleWorks Documents • Shanker, Bruce • TimeOut; SuperFonts; Beagle Bros; Printrix; printing effects
- Software Review • 17 • Using SuperFonts' Alternate Character Sets • n/a • UltraMacros; SuperFonts; printing effects
- Software Review • 19 • Why You Can't Use a Print Buffer to Speed Up SuperFonts or Printrix • n/a • SuperFonts; Printrix; speed; printing; printers
- Novice Notes • 21 • How to Use the AppleWorks Clipboard • Merritt, Cathleen; Williams, Warren • AppleWorks; clipboard
- Members Helping Members • 25 • How to Get Help with AppleWorks-Compatible Software • Marriott, William • special programs; software

NEW KEY WORDS:

Robert Lissner; accelerator; StyleWare; gsWorks; Orange Micro; Zip Technology; Rocket Chip; Bits and Pieces; underlining; Apple-H Printer; screen dumps; SuperFonts; clipboard



BULK RATE
Postage
Paid
NAUG

NAUG
National AppleWorks Users Group
Box 87453, Canton, Michigan 48187
(313) 397-1594
BBS (313) 482-8090

TIME VALUE MATERIAL

NAUG Membership

Name: _____

Member N^o (if renewing): _____

Address: _____

City: _____ State: _____

Zip or mail code: _____ Country: _____

Home Phone: _____

Work Phone: _____

Check all which apply:

- ☐ Membership: \$27 for 12 months of the *AppleWorks Forum*
☐ 1st Class Mail to the United States and Mexico: \$15*
☐ 1st Class Mail to Canada: \$20*
☐ Surface Mail outside North America: \$20*
☐ Air Mail outside North America: \$35*

*in addition to subscription rate.

Send this completed application with your payment.

☐ Amount Enclosed: \$ _____

☐ VISA ☐ MasterCard

Card # _____ Expires _____

Signature _____

NAUG shares members' addresses with other user groups and selected vendors. If you do NOT want to receive mail from these agencies, please check here: ☐

AppleWorks is a trademark of Claris Corporation.

Commercial Advertising

The *AppleWorks Forum* is a service to NAUG members. Commercial advertisements are accepted only on a space-available basis and will not be allowed to supplant editorial space. Advertising rates are as follows:

Full page:	7.25" x 9.75"	\$500.00
Half page:	3.25" x 9.75"	\$275.00
	7.25" x 4.5"	\$250.00
Quarter page:	3.25" x 4.5"	\$125.00
Eighth page:	3.25" x 2.25"	\$75.00

NAUG does not have an advertising department and is not equipped to do art work or layout for advertisements. Space is reserved upon receipt of payment in full and must be received in the NAUG office at least two months prior to the cover date on the newsletter. Art work must be received in the NAUG office no later than 45 days prior to the cover date on the newsletter. Confirmation of space availability will be sent upon receipt of payment.

Vendors offering discounts to NAUG members of 20% or more may qualify for a brief description of their offer in the *AppleWorks Forum*. Submit your discount offer to NAUG in writing for consideration.

Seminar Schedule

NAUG sponsors AppleWorks seminars in various locations throughout the country. These seminars, entitled "AppleWorks: Beyond the Basics", are intended for AppleWorks users who want to solve AppleWorks problems and learn new techniques.

Seminar schedule:

July 9	—	Cleveland, OH
July 9	—	Springfield/Hartford, CT
July 16	—	Batavia, NY (Buffalo/Rochester)
July 16	—	Stamford, CT
July 19	—	Plainview, NY (Long Island)
July 23	—	Fairfax, VA (Washington, DC)
July 30	—	San Diego, CA
August 6	—	Los Angeles, CA
August 13	—	San Francisco/Oakland, CA
August 20	—	Sacramento, CA

The presenters, Dr. Warren Williams and Oliver Roosevelt, are technical advisors to NAUG and frequent contributors to the *AppleWorks Forum*. Write or call NAUG for more information.